

FIG. 1 A

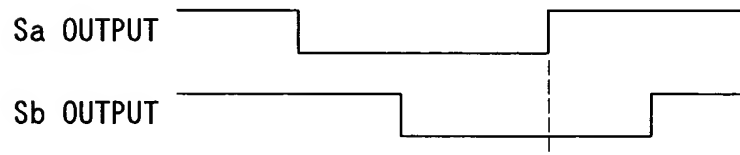
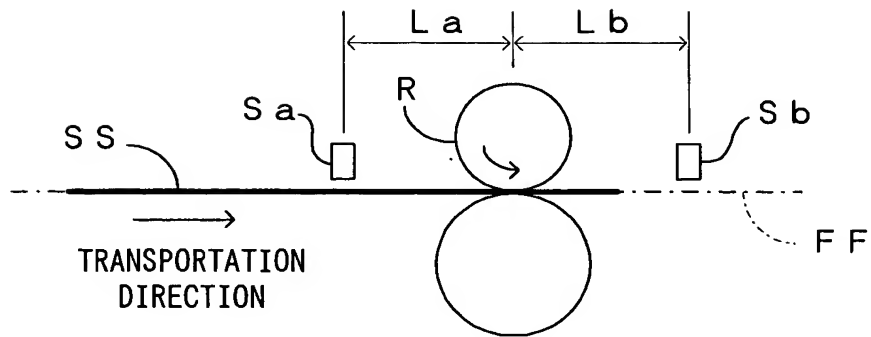


FIG. 1 B

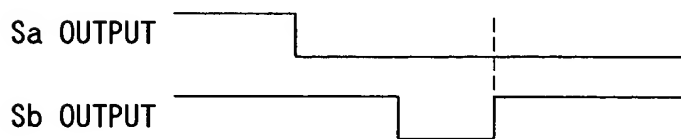
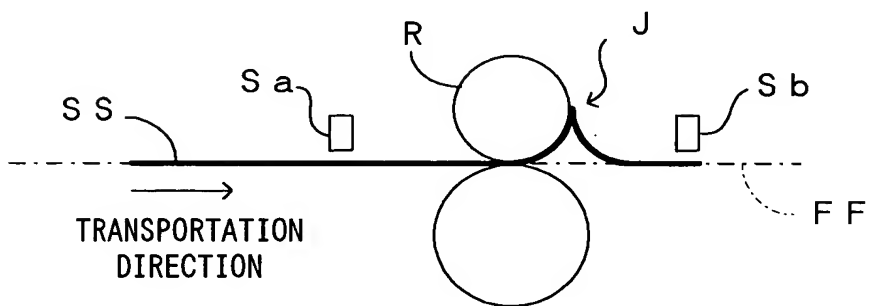


FIG. 2

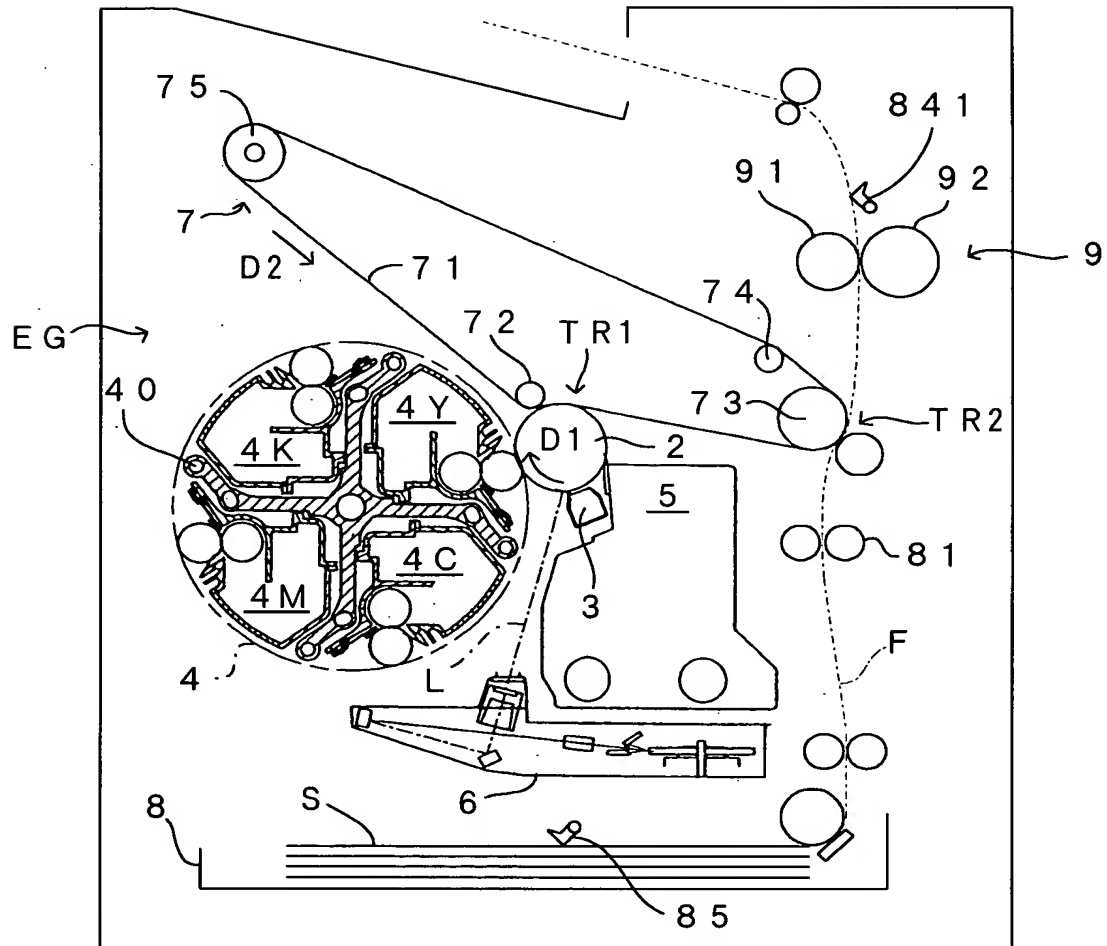


FIG. 3

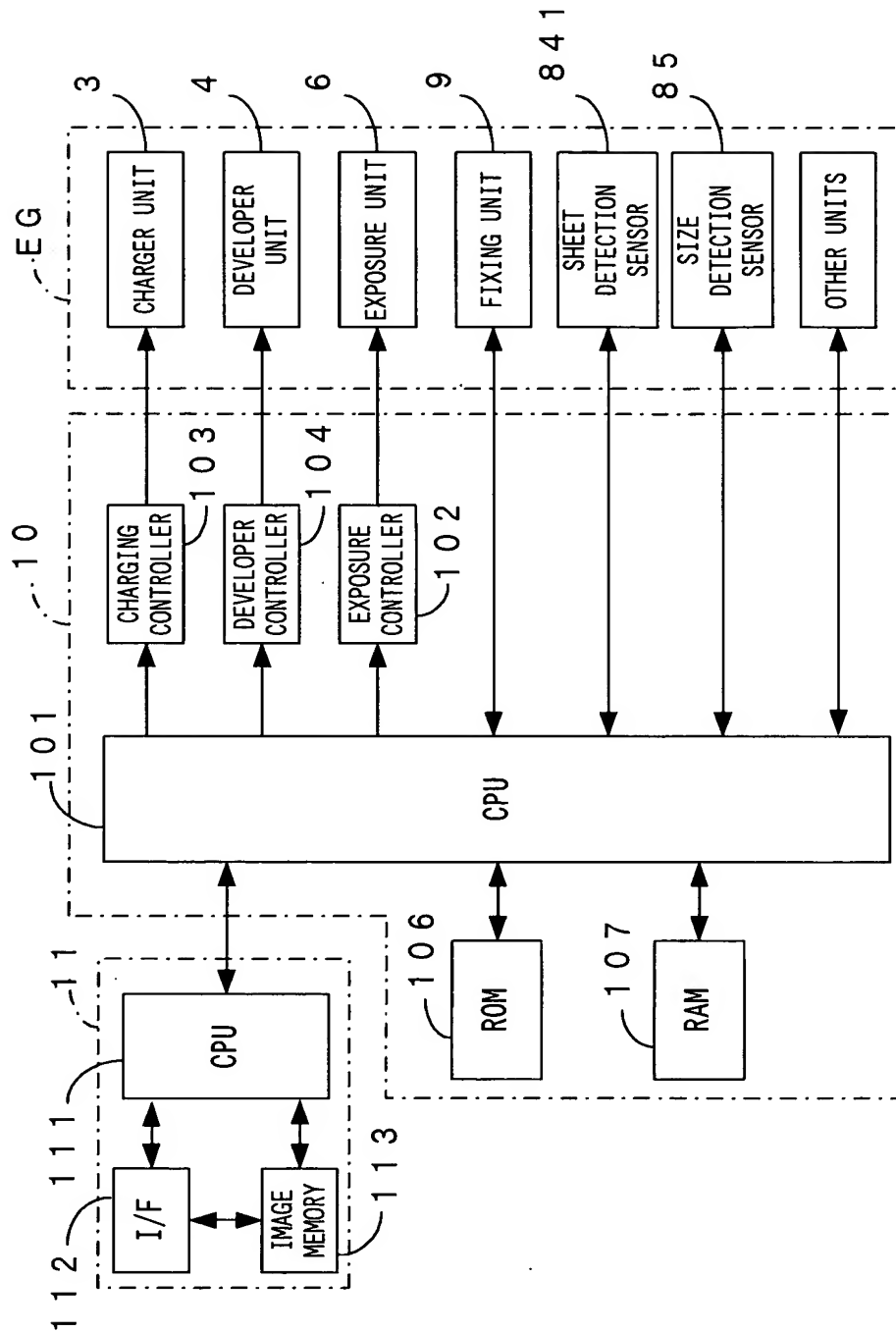


FIG. 4A

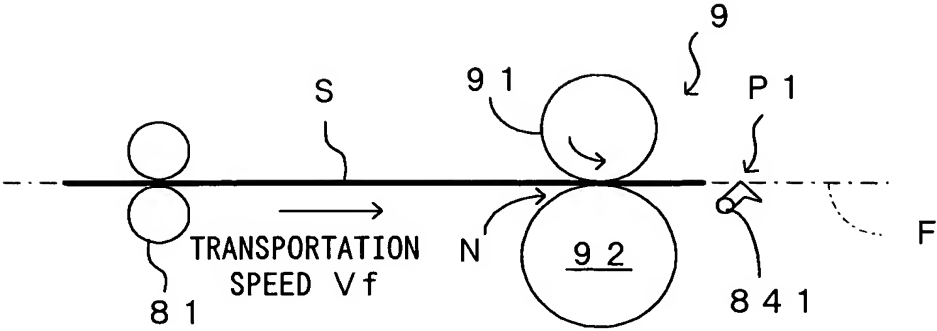
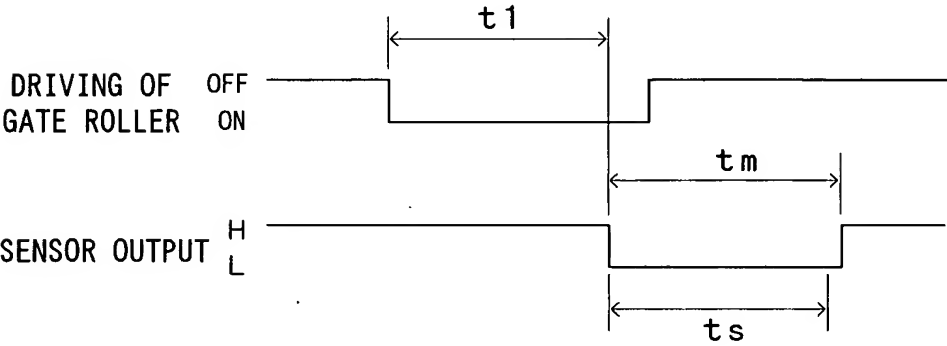


FIG. 4B



F I G . 5

SHEET SIZE	SHEET LENGTH Ls[mm]	REFERENCE TIME ts[sec]
A3	420	3.780
A4	297	2.673
B4	364	3.276
B5	257	2.313

$$t_s = L_s / V_f \times 0.9$$

Vf (TRANSPORTATION SPEED) = 100 mm/sec

FIG. 6 A

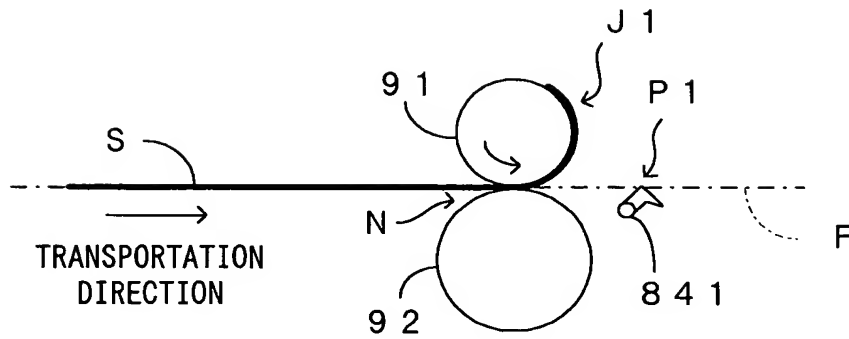


FIG. 6 B

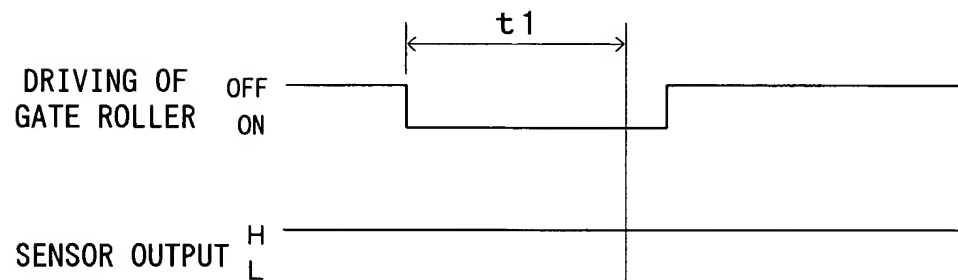


FIG. 7

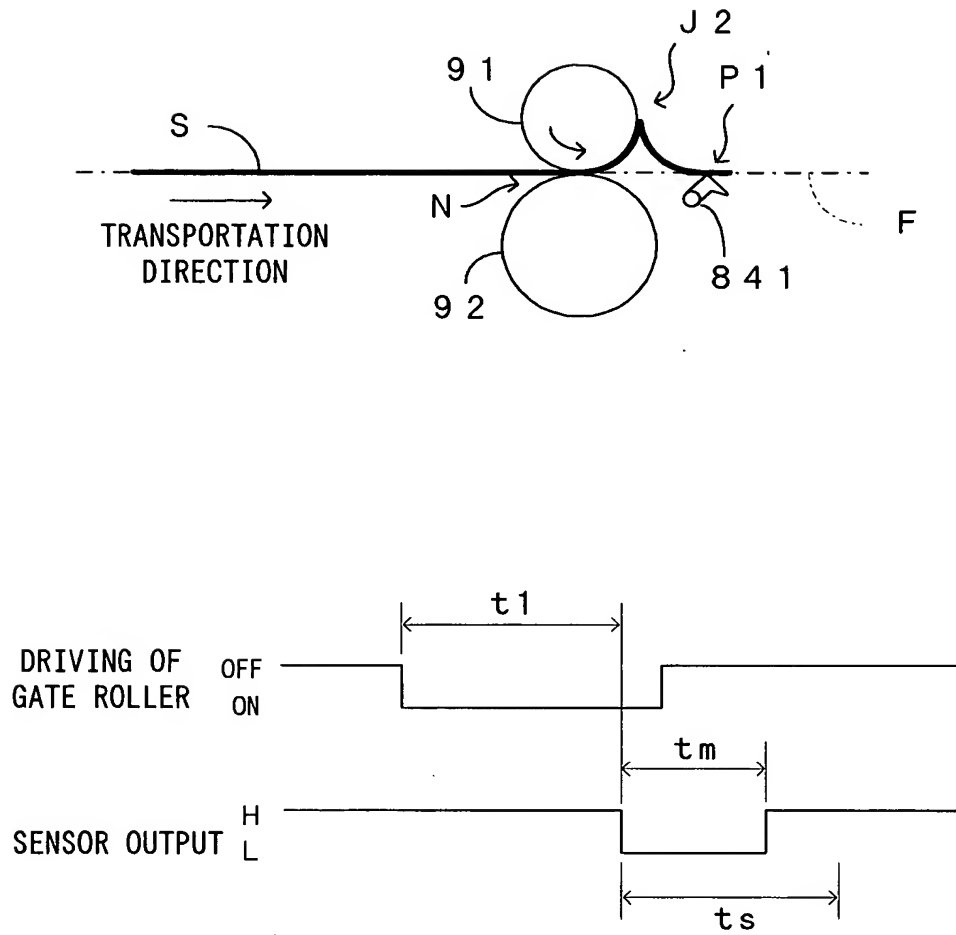


FIG. 8

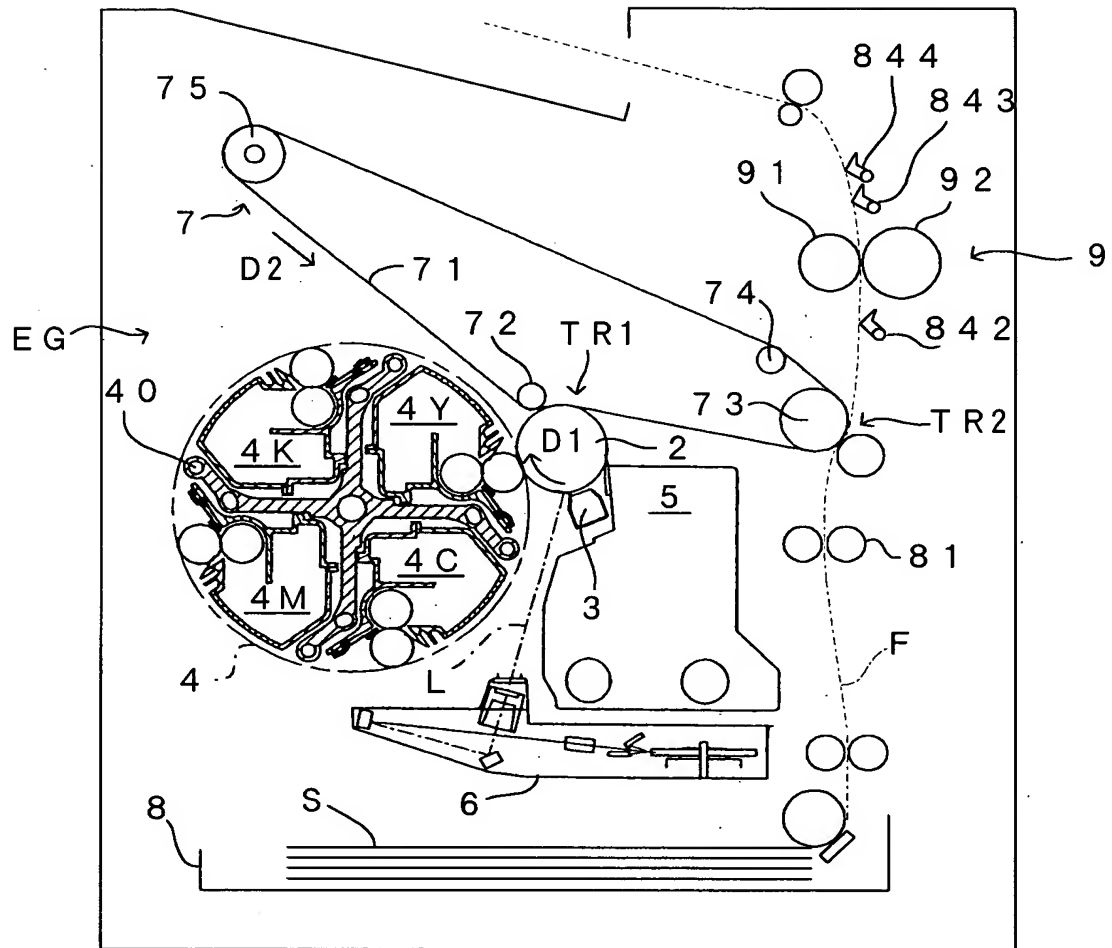


FIG. 9A

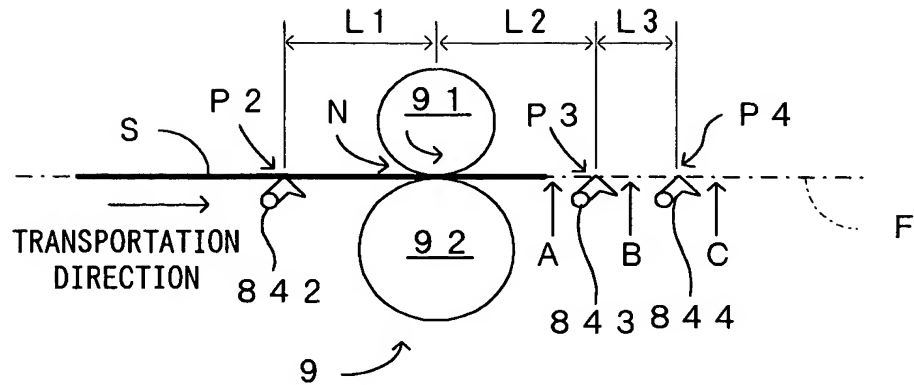


FIG. 9B

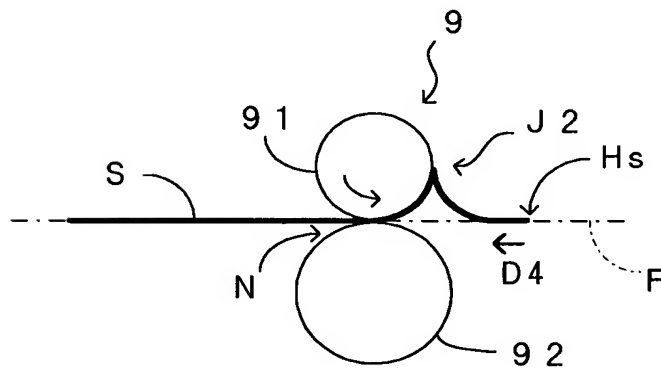


FIG. 10A

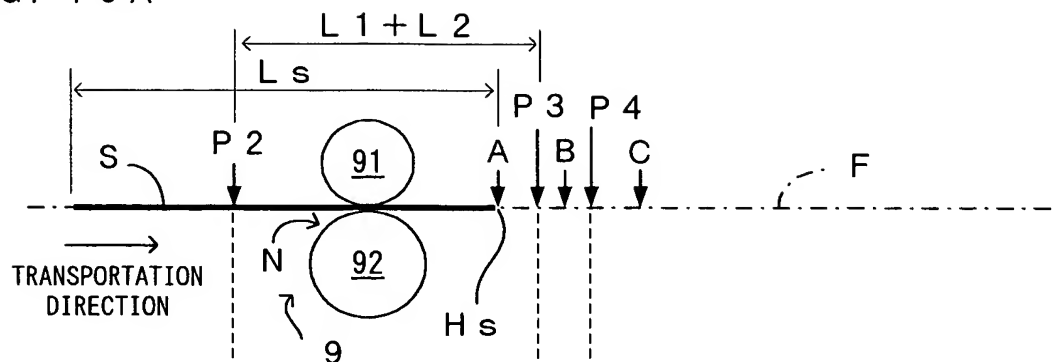


FIG. 10B

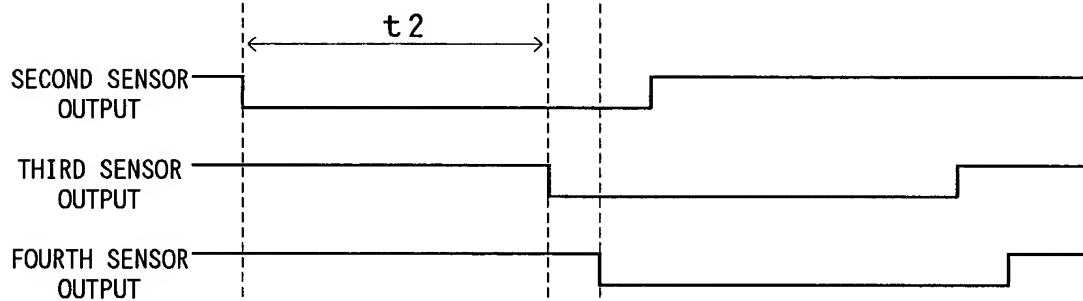


FIG. 10C

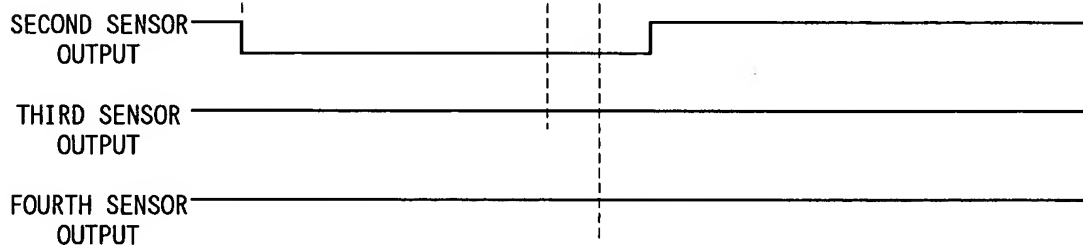


FIG. 11A

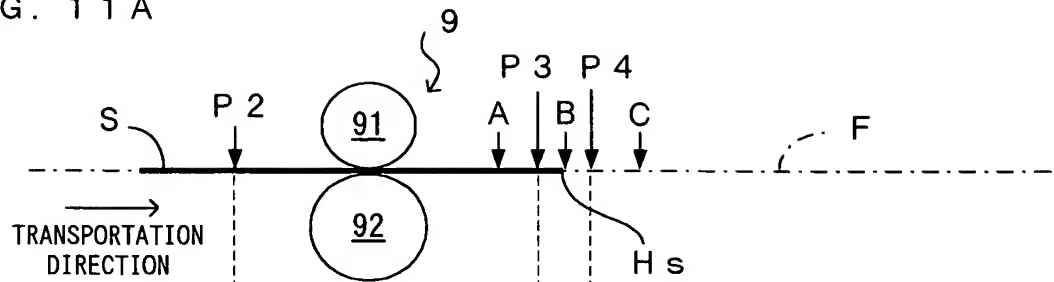


FIG. 11B

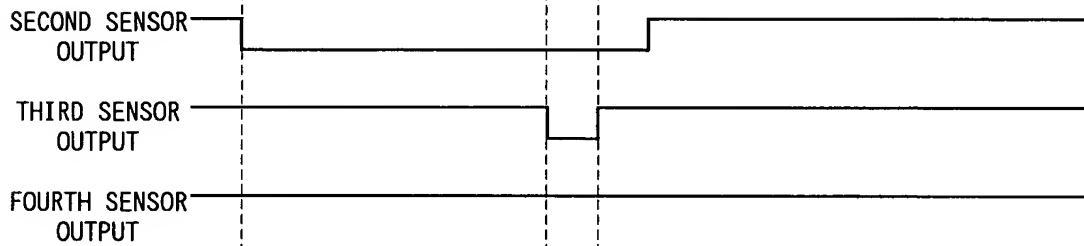


FIG. 11C

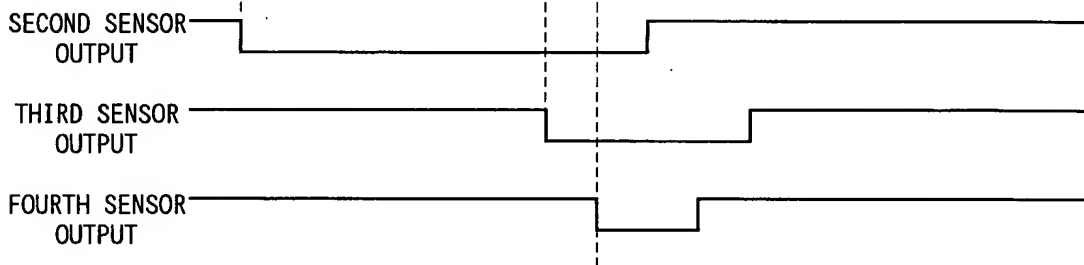


FIG. 13A

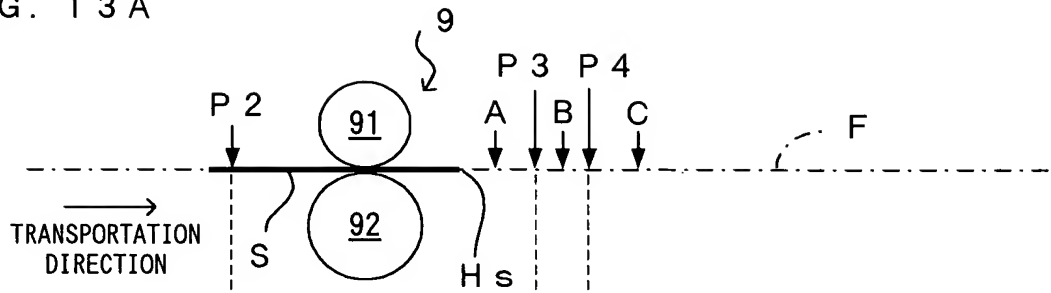


FIG. 13B

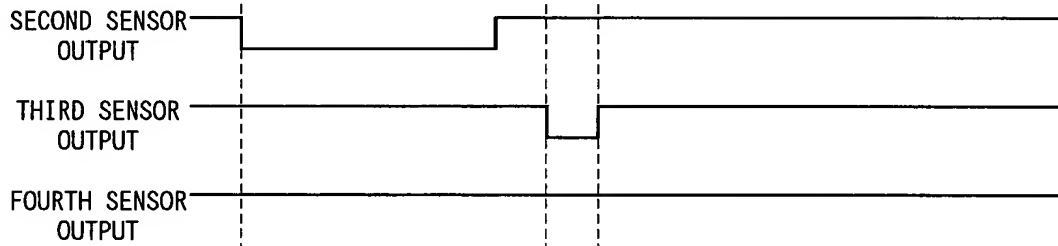


FIG. 13C

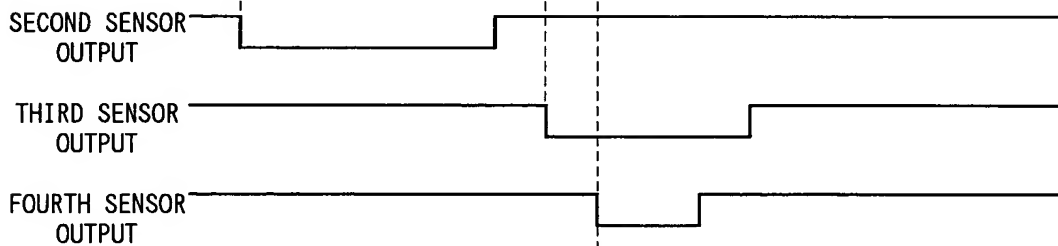


FIG. 14 A

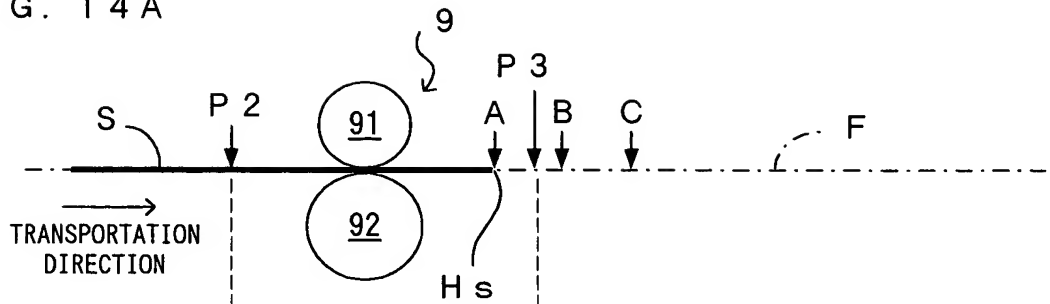


FIG. 14 B

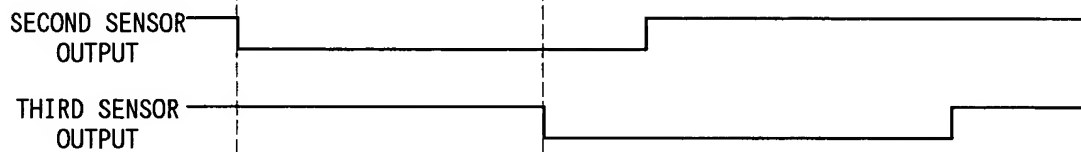


FIG. 14 C

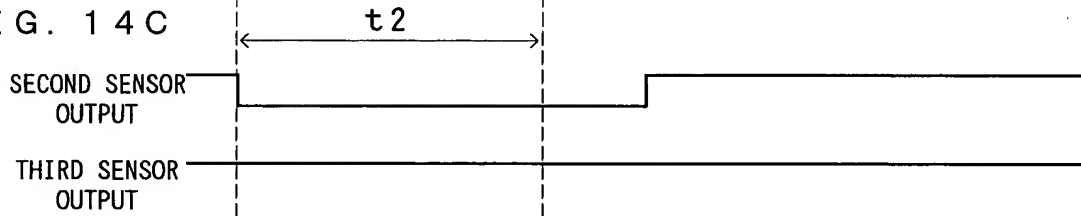


FIG. 14 D



FIG. 14 E

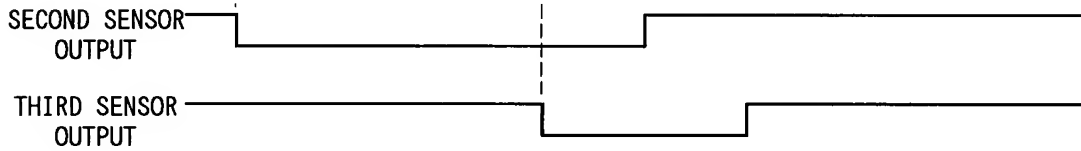


FIG. 15 A

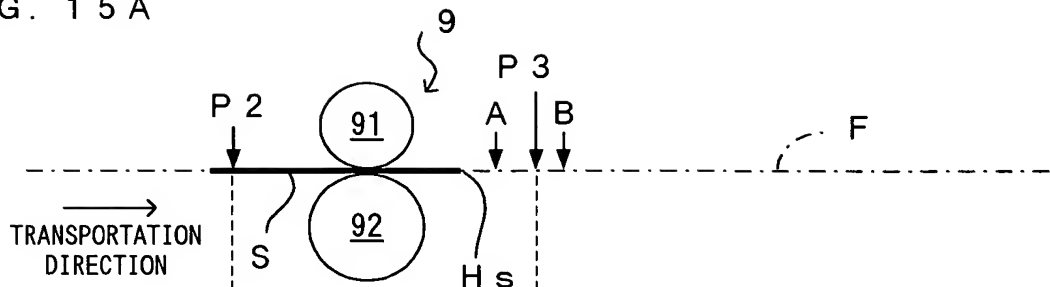


FIG. 15 B

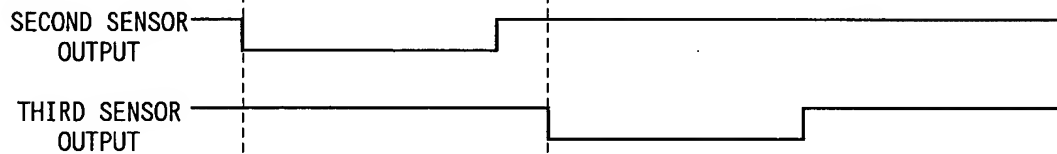


FIG. 15 C

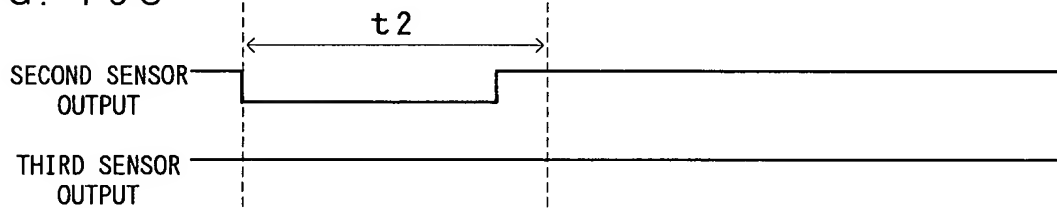


FIG. 15 D

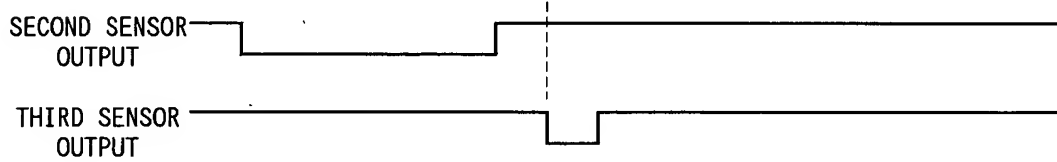


FIG. 16

	CONDITION FOR APPLICATION	SHEET LENGTH	JAM PATTERN	CONDITION 1	CONDITION 2	CONDITION 3	CONDITION 4	JUDGEMENT RESULT
COMPARISON EXAMPLE	SENSORS DISPOSED AT TWO POSITIONS	LONG	A-1 (NORMAL)	-			-	○
			A-2	-			○	○
			A-3	○			-	○
			A-4	-			-	x
	CONDITION 1 + CONDITION 4	SHORT	B-1 (NORMAL)	-			-	○
			B-2	-			○	○
			B-3	-			-	x
			B-4	-			-	x
PREFERRED EMBODIMENT	SENSORS DISPOSED AT THREE POSITIONS	LONG	A-1 (NORMAL)	-	-	-	-	○
			A-2	-	-	-	○	○
			A-3	○	-	○	-	○
			A-4	-	○	-	-	○
	CONDITION 1 + CONDITION 2 + CONDITION 3 + CONDITION 4	SHORT	B-1 (NORMAL)	-	-	-	-	○
			B-2	-	-	-	○	○
			B-3	-	-	○	-	○
			B-4	-	○	-	-	○

FIG. 17

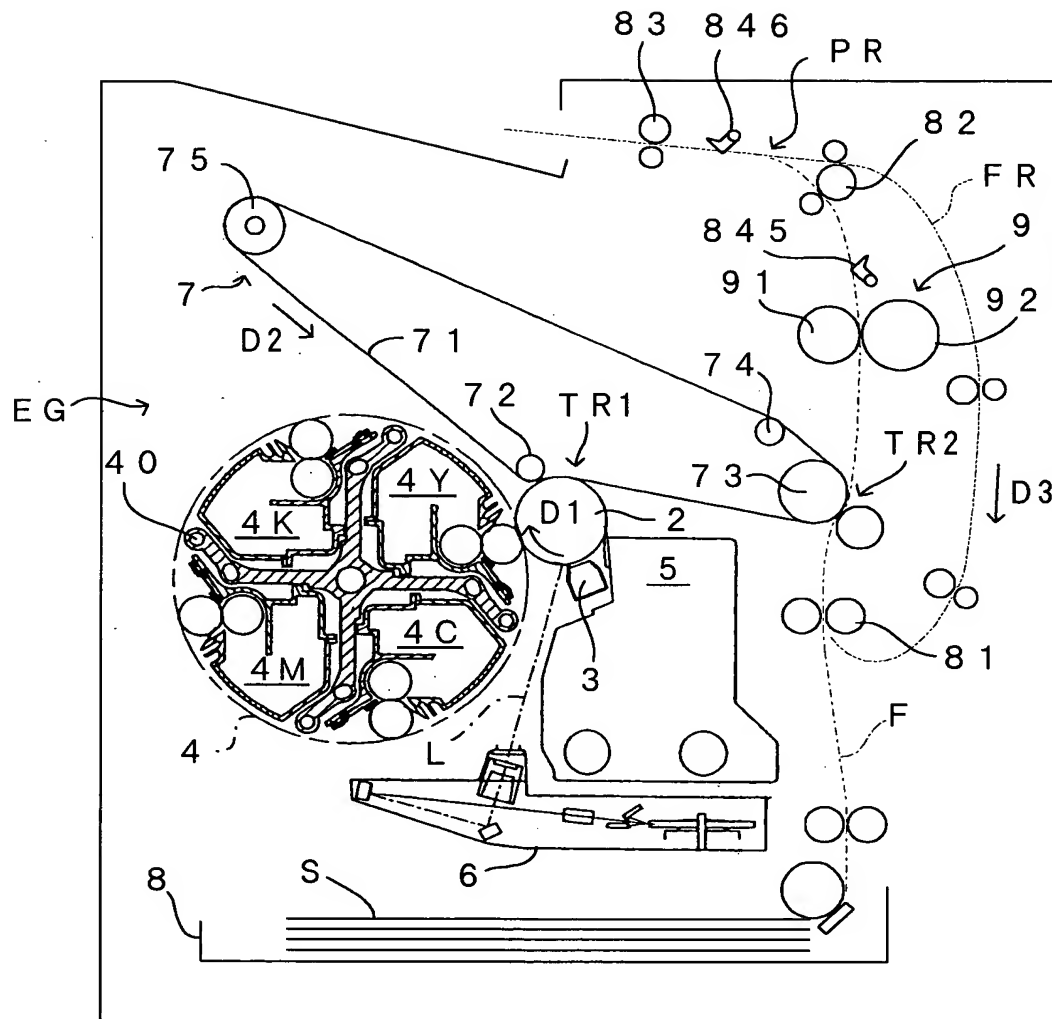


FIG. 18 A

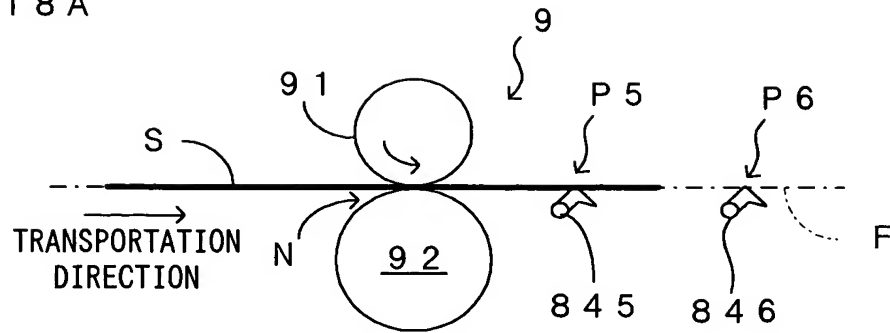


FIG. 18 B

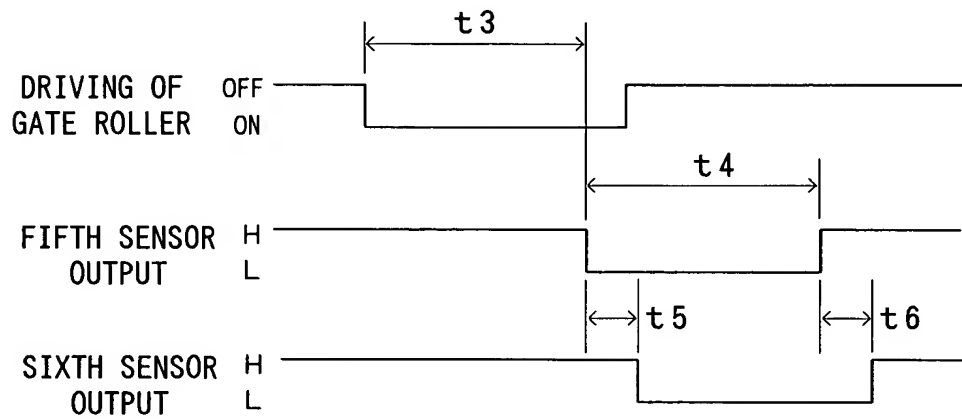


FIG. 18 C

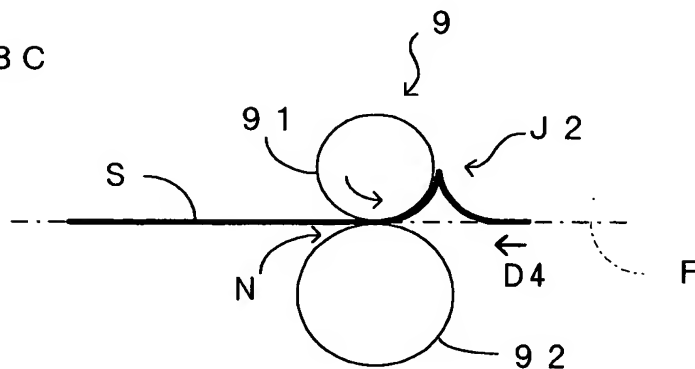


FIG. 19 A

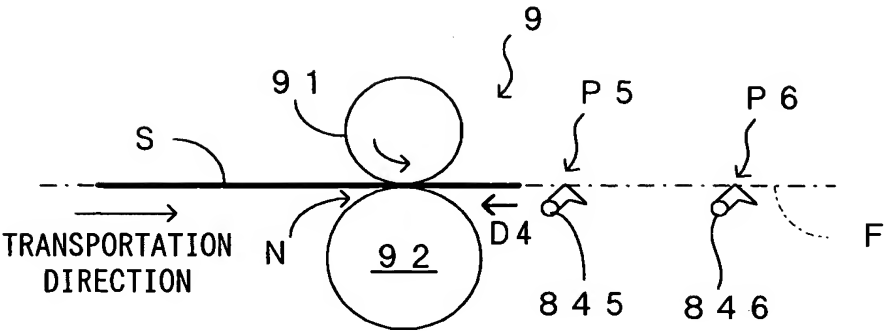


FIG. 19 B

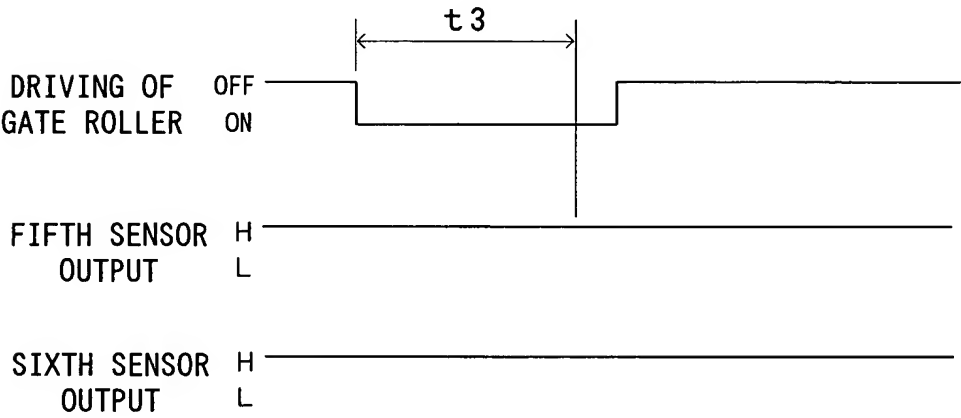


FIG. 20A

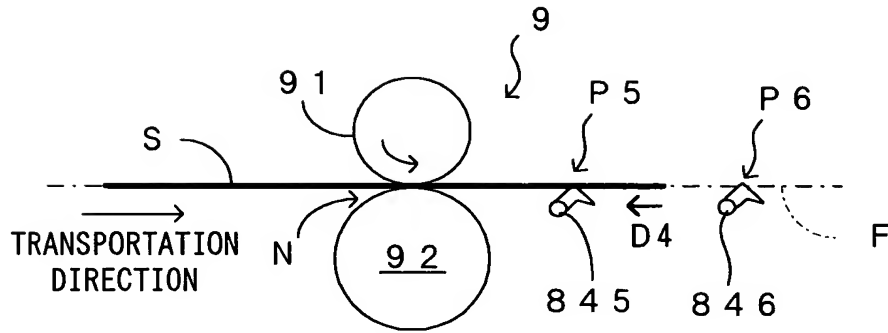


FIG. 20B

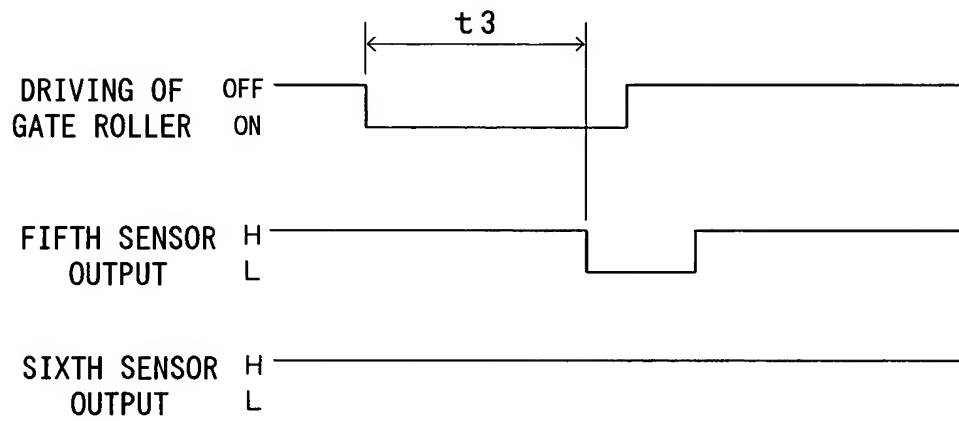


FIG. 21 A

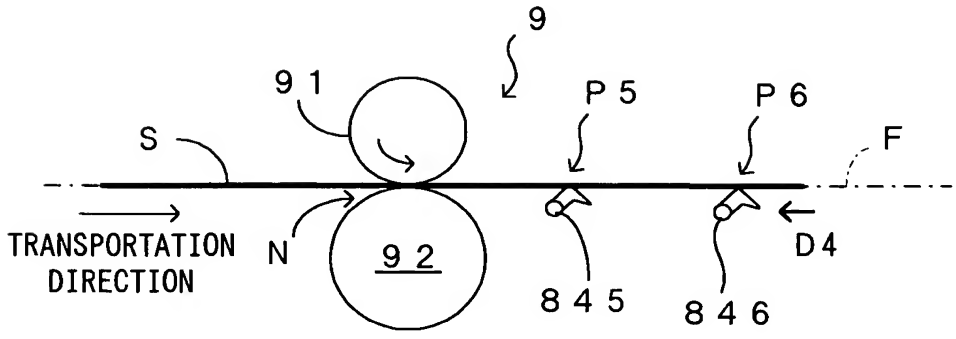


FIG. 21 B

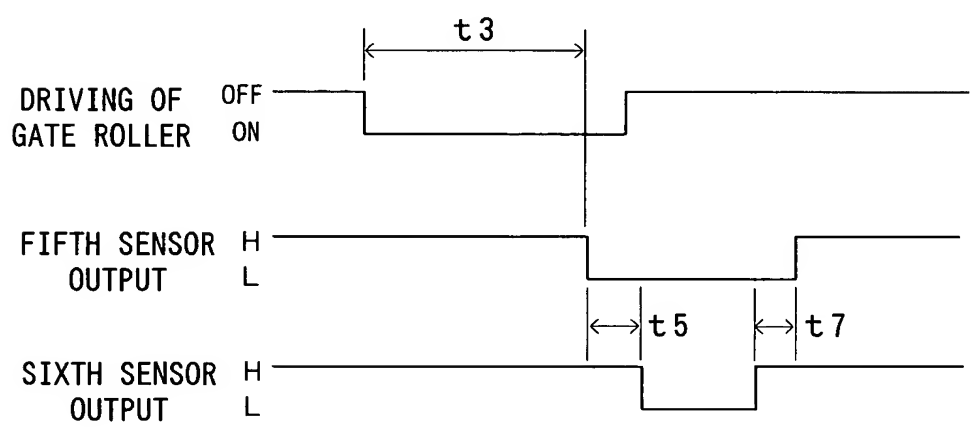


FIG. 22 A

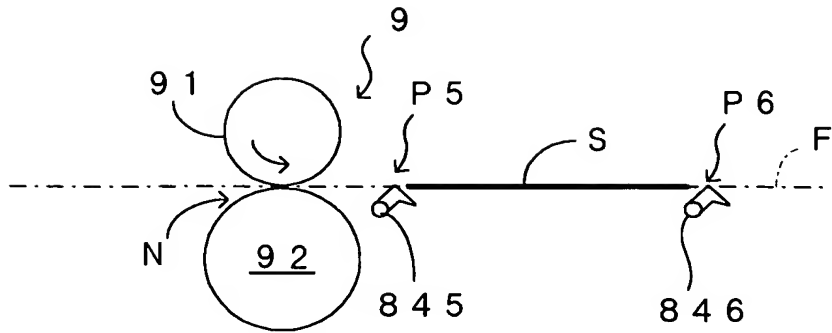


FIG. 22 B

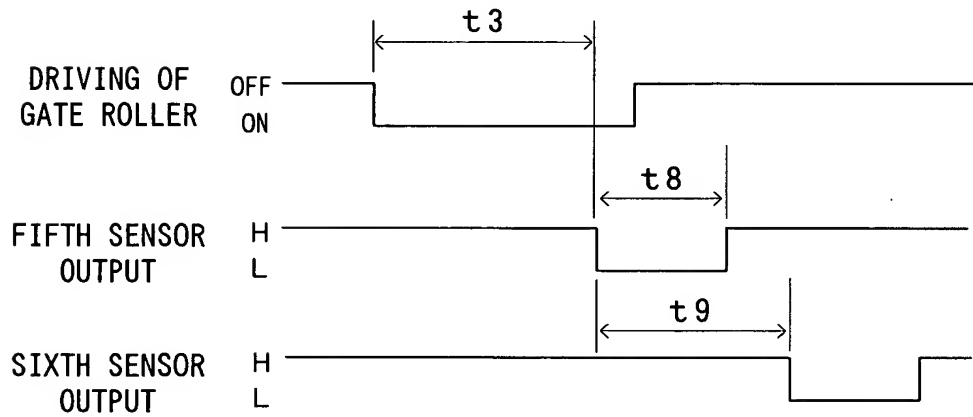


FIG. 22 C

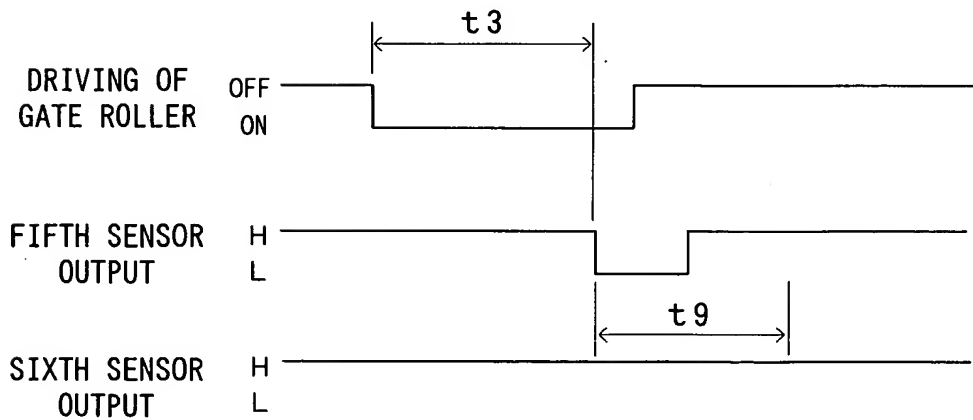


FIG. 23 A

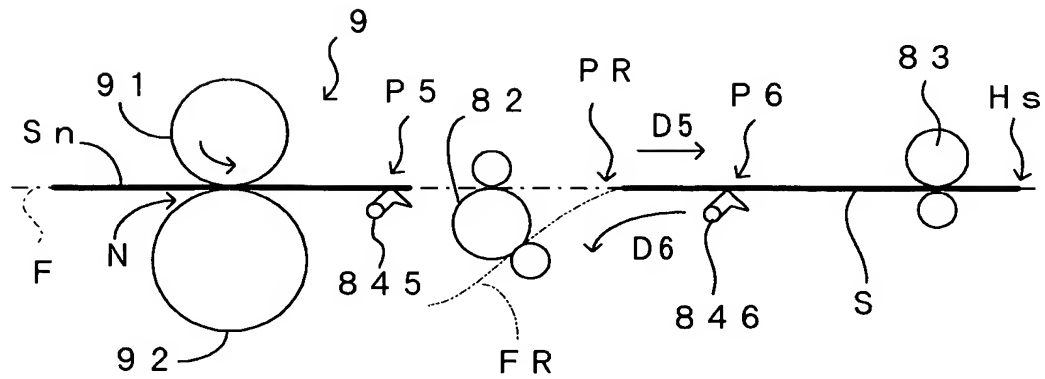


FIG. 23 B

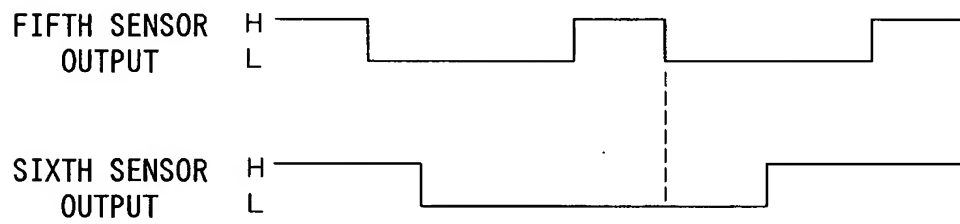


FIG. 23 C

